



ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER	SYMBOL	TEST CONDITIONS		MBR40H35CT	MBR40H45CT	MBR40H50CT	MBR40H60CT	UNIT
Maximum instantaneous forward voltage per diode	V _F ⁽¹⁾	I _F = 20 A	T _J = 25 °C	0.64		0.68		V
		I _F = 20 A	T _J = 125 °C	0.55		0.60		
		I _F = 40 A	T _J = 25 °C	0.76		0.83		
		I _F = 40 A	T _J = 125 °C	0.70		0.73		
Maximum instantaneous reverse current per diode	I _R ⁽²⁾	rated V _R	T _J = 25 °C	100				μA
			T _J = 125 °C	15				mA
Typical junction capacitance	C _J	4.0 V, 1 MHz per diode		1200		920		pF

Notes(1) Pulse test: 300 μs pulse width, 1 % duty cycle(2) Pulse test: Pulse width $\leq 40\text{ ms}$

THERMAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)						
PARAMETER	SYMBOL	MBR40H35CT	MBR40H45CT	MBR40H50CT	MBR40H60CT	UNIT
Thermal resistance, junction to case per diode	$R_{\theta JC}$	1.8				$^{\circ}\text{C/W}$

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AB	MBR40H45CT-E3/45	1.58	45	50/tube	Tube

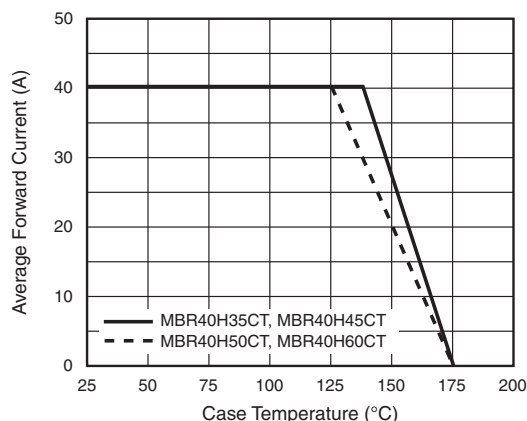
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Fig. 1 - Forward Derating Curve Per Diode

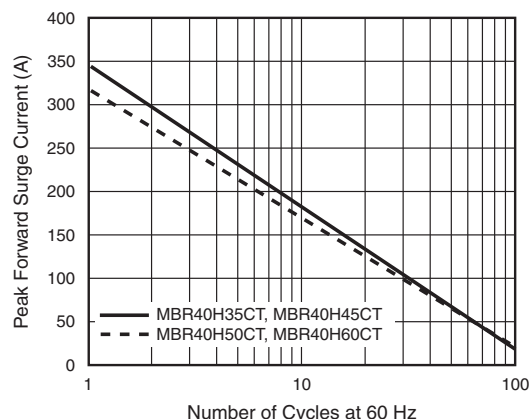


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

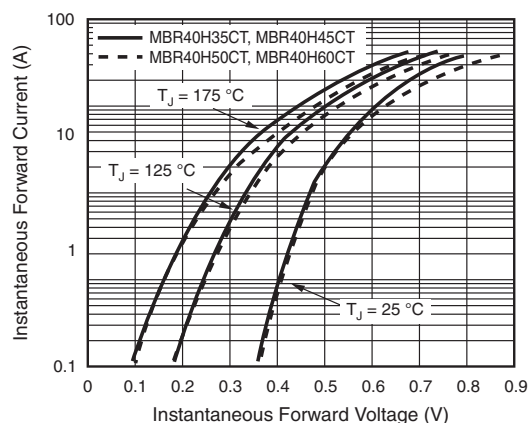


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

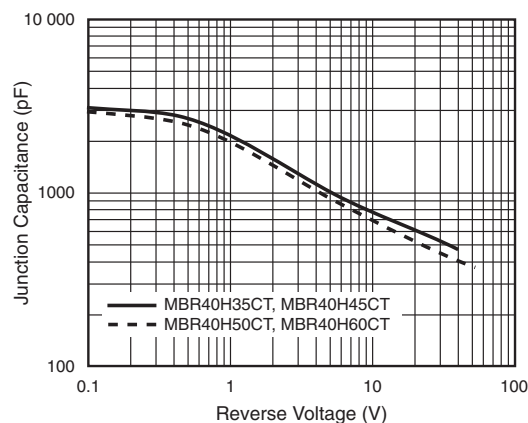


Fig. 5 - Typical Junction Capacitance Per Diode

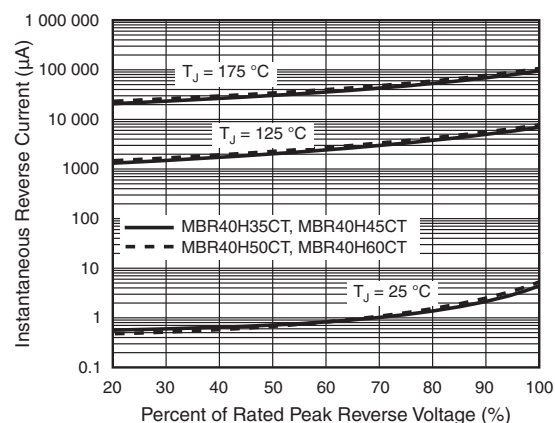


Fig. 4 - Typical Reverse Characteristics Per Diode

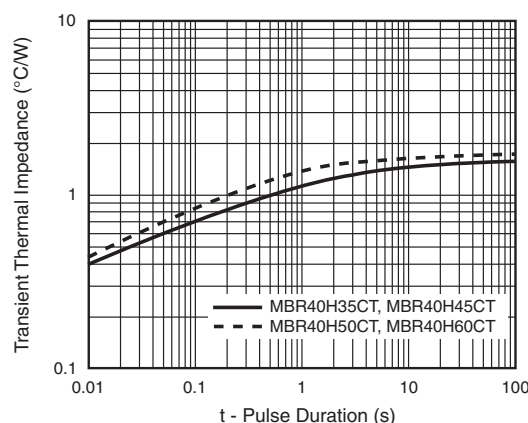
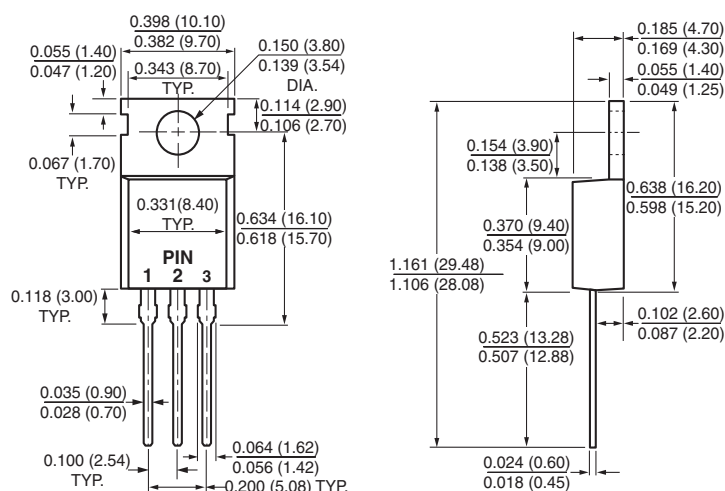


Fig. 6 - Typical Transient Thermal Impedance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

TO-220AB





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